

What is claimed is:

1. A sampler for a body fluid testing apparatus having a light source for generating a testing wavelength and a light detector for detecting light, said source and detector disposed in alignment to define a light path therebetween, said apparatus including a housing having an opening of predetermined geometry defining an access to said light path, said sampler comprising:

- an operator engagable handle and a sample end;
- said sample end having a mating geometry with said predetermined geometry for said sample end to be inserted into said opening in a predetermined repeatable alignment with a sample location of said sample end positioned within said light path;
- a collection apparatus carried on said sampler and including:

- A. a needle sized to protrude beyond said housing when said sampler is in said predetermined alignment with said needle protruding a distance selected for said needle to penetrate into a fluid laden skin layer when said housing is urged against said skin layer by said operator;

- B. a medium carried on said sampler and in fluid flow communication with said needle for body fluid to flow from said needle onto medium; said medium positioned at said sample location; whereby said operator may place said sample end within said opening with said medium disposed within

said light path and urge said housing against said skin layer for said needle to penetrate into said skin layer for fluid within said layer to flow onto said medium and be tested by said light source and subsequent to said testing said sampler may be removed from said housing and discarded.

2. A sampler according to claim 1 wherein said housing opening extends along a side of said housing and onto a distal end of said housing;

said mating geometry including a needle receiving portion of said body sized to project into said opening with said needle extending through said distal end of said housing.

3. A sampler according to claim 1 wherein said housing includes a first latch member;

said main body including a second latch member disposed to releasably engage and latch with said first latch member when said body is in said predetermined alignment.

4. A sampler according to claim 1 wherein said handle comprises a sampler housing having an interior; said sample end secured to said sampler housing and movable relative thereto between a sample position with said needle disposed exterior of said sampler housing and a storage position with said needle disposed in said interior of said sampler housing.

5. A sampler according to claim 4 wherein said sample end is pivotally secured to said sampler housing for pivoting movement of said sample end relative to said sampler housing between said sample position and said storage position.

6. A sampler according to claim 4 wherein said apparatus housing includes a cam positioned to engage said sampler as said sampler is inserted into said opening, said sampler further comprising:

a first cam follower coupled to said sample end and positioned to engage said cam with said first cam follower urging said sample end to move from said storage position to said sample position as said first cam follower is displaced by said cam.

7. A sampler according to claim 6 wherein said sample end is pivotally secured to said sampler housing for pivoting movement of said sample end relative to said sampler housing between said sample position and said storage position.

8. A sampler according to claim 6 further comprising a second cam follower coupled to said sample end and positioned to engage said cam as said sampler is removed from said opening with said second cam follower positioned to at least partially urge said sample end from said sample position to said storage position as said second cam follower is displaced by said cam.

9. A sampler according to claim 8 further comprising a spring positioned to be deflected in response to partial movement of said sample end from said sample position with deflected spring urging said sample end to said storage position and restraining said sample end in said storage position.

10. A sampler according to claim 6 further comprising means for restraining said sample end in said storage position until said cam follower is displaced by said cam.

11. A sampler according to claim 4 wherein said medium is positioned on said sample end for said medium to be disposed within said interior of said sampler housing when said sample end is in said storage position and to be disposed exterior of said sample housing when said sample end is in said sample position.

12. A sampler for collecting a body fluid from a patient for subsequent testing for constituents, said sampler comprising:

- an operator engagable handle and a sample end;
- a collection apparatus carried on said sampler

and including:

- A. a needle for penetration of a skin layer of said patient and drawing said body fluid from said layer into said;

B. a medium carried on said sampler and in fluid flow communication with said needle for said fluid to flow from said needle on to medium; said sample end secured to said sampler housing and movable relative thereto between a sample position with said needle disposed exterior of said sampler housing and a storage position with said needle disposed in said interior of said sampler housing.

13. A sampler according to claim 12 wherein said sample end is pivotally secured to said sampler housing for pivoting movement of said sample end relative to said sampler housing between said sample position and said storage position.

14. A sampler according to claim 12 further comprising: a first cam follower coupled to said sample end and positioned to move said sample end from said storage position to said sample position as said first cam follower is displaced by a cam.

15. A sampler according to claim 14 wherein said sample end is pivotally secured to said sampler housing for pivoting movement of said sample end relative to said sampler housing between said sample position and said storage position.

16. A sampler according to claim 14 further comprising a second cam follower coupled to said sample end and positioned to at least partially urge said sample end from

said sample position to said storage position as said second cam follower is displaced by a cam.

17. A sampler according to claim 16 further comprising a spring positioned to be deflected in response to partial movement of said sample end from said sample position with deflected spring urging said sample end to said storage position and restraining said sample end in said storage position.

18. A sampler according to claim 13 further comprising means for restraining said sample end in said storage position until said cam follower is displaced by said cam.

19. A sampler according to claim 13 wherein said medium is positioned on said sample end for said medium to be disposed within said interior of said sampler housing when said sample end is in said storage position and to be disposed exterior of said sample housing when said sample end is in said sample position.